

New Brachypterous *Platydomene* (Coleoptera, Staphylinidae) from Mountain Areas of Central Honshu, Japan

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Abstract Five species of the staphylinid genus *Platydomene* from central Honshu, Japan, are dealt with. Four species of these, are described as new species under the names *P. hakusana*, *P. kojimai*, *P. nikkoensis* and *P. hirogawarana*, and the remaining one determined as *P. nobilis* (SAWADA) is newly recorded with collecting data.

Four species of the staphylinid genus *Platydomene* in the subfamily Paederinae have hitherto been known from Japan. Examining the collection of the Japanese species of this genus, I have found a number of interesting things obtained in mountain areas of central Honshu. Most specimens of them were obtained from under dead leaves accumulated in deciduous broadleaved forests, and two specimens from Mt. Hakusan were obtained by using vineger and pitfall traps set in the alpine zone. They were classified into five species, which seem to form a species-group of their own related to *P. nobilis* (SAWADA, 1965) from the Northern Japanese Alps in view of bronzed elytra and reduced hind wings.

After a close examination, it has become clear that one of the five is referable to *P. nobilis* and the remaining four are new to science for reason of peculiarity of the male genital organ different from those of previously known species. They will be described in the present paper. All the type specimens of the four new species to be designated are deposited in the collection of the Laboratory of Entomology, Tokyo University of Agriculture.

Before going further, I wish to express my cordial thanks to Dr. Shun-Ichi UÉNO, Visiting Professor at the Tokyo University of Agriculture, for his kind advice on the present study. Deep gratitude is also due to Mr. Michiaki HASEGAWA, Toyohashi Museum of Natural History, Dr. Hiroaki KOJIMA, Tokyo University of Agriculture, Dr. Ichiji TOGASHI, Hakusan-shi, and Mr. Takashi WATANABE, Fujisawa-shi, for their kindness in supplying me with the specimens used in this study, and to Mr. Tateo ITO, Yawata-shi, for his kindness in giving useful information, and to Mr. Junnosuke KANOTOH, Laboratory of Entomology, Tokyo University of Agriculture, for taking the photographs inserted in this paper.

Platydomene nobilis (SAWADA)

[Japanese name: Dôgane-nagahanekakushi]

Lobrathium (Platydomene) nobile SAWADA, 1965, Ent. Rev., Japan, Osaka, 18: 11, pl. 2.
Platydomene nobilis: SMETANA, 2004, Cat. Palaearct. Coleopt., 2: 601.

This species was originally described by SAWADA (1965, p. 11) on the basis of four male specimens obtained at three different localities of the Northern Japanese Alps in central Honshu, Japan. Since then, it has not been reported again. Recently, I had an opportunity to examine seven specimens, including female, of this species. Therefore, I am going to record their collecting data and also to give a short description of the female.

Specimens examined. 3♀♀, Renge-onsen, Itoigawa-shi, Niigata Pref., Honshu, Japan, 30–VII–2003, T. WATANABE leg.; 1♂, 1♀, same locality and collector as above, 27–VIII–2003; 1♂, Mt. Sugoroku-dake, N. Jpn. Alps, Gifu Pref., Honshu, Japan, 27–IX–1985, Y. WATANABE leg., 1♂, Mt. Norikura-dake, Nagano Pref., Honshu, Japan, 27, 28–VII–1985, S. TSUYUKI leg.

Female. Similar in general appearance to male, but different from it in the 8th abdominal sternite narrowed towards the subtruncate apex, and the 7th sternite is simple.

Distribution. Japan (Northern Japanese Alps in central Honshu).

Bionomics. The specimens obtained from Renge-onsen were found out by sifting dead leaves in a broadleaved forest at an altitude of 1,500 m. A specimen from Mt. Sugoroku-dake was obtained from under a stone in the alpine zone at an altitude of about 2,800 m.

Platydomene hakusana Y. WATANABE, sp. nov.

[Japanese name: Hakusan-dôgane-nagahanekakushi]

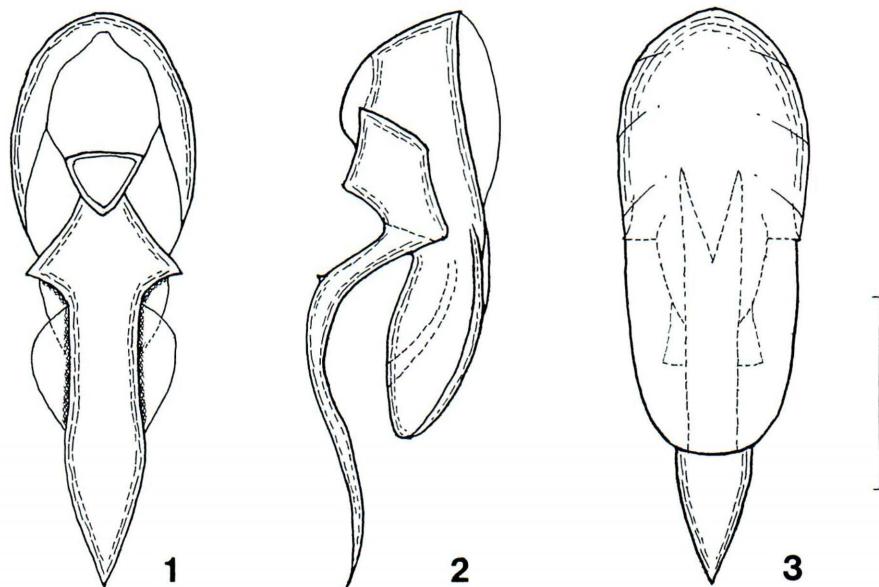
(Figs. 1–3)

Lobrathium sp.: HIRAMATSU, 2002, Biogeography, 4: 16.

Body length: 6.1–6.3 mm (from front margin of head to anal end); 3.3–3.6 mm (from front margin of head to elytral apices).

Body elongate, nearly parallel-sided and subdepressed above. Colour blackish brown and moderately shining, with mouth parts, antennae and legs reddish brown, elytra with slightly bronzed reflection.

Male. Head suborbicular, as long as wide, and gently elevated medially, widest at the middle and more strongly narrowed posteriad than anteriad; lateral sides gently arcuate; frontal area between antennal tubercles flattened and glabrous except for a large setiferous puncture inside each antennal tibercle; surface densely and coarsely punctured, the punctures becoming much closer and finer in latero-basal parts; eyes small and nearly flat, their longitudinal diameter less than a half as long as postocular



Figs. 1-3. Male genital organ of *Platydomene hakusana* Y. WATANABE, sp. nov.; dorsal view (1), lateral view (2), and ventral view (3). Scale: 0.5 mm.

part. Antennae moderately long, extending a little beyond the middle of pronotum and not thickened apicad, with basal segment polished, 2nd subopaque, the remainings opaque, 1st segment robust and strongly dilated apicad, more than twice as long as wide, 2nd distinctly longer than wide ($length/width=1.43$), a half as long as and a little narrower than 1st ($2nd/1st=0.93$), 3rd equal in both length and width, 4th to 10th more or less moniliform and equal in both length and width to one another, each somewhat longer than wide ($length/width=1.20$), a little shorter (each of 4th to 10th/ $3rd=1.33$) and slightly narrower (each of 4th to 10th/ $3rd=0.89$) than 3rd, 11th fusiform, more than 1.5 times as long as wide and somewhat broader than 10th ($11th/10th=1.20$), subacuminate at the apex.

Pronotum gently elevated medially and slightly narrowed posteriad, distinctly longer than wide ($length/width=1.20$), a little longer (pronotum/head=1.14) but slightly narrower (pronotum/head=0.95) than head; lateral sides almost straight except near anterior and posterior angles as seen from dorsal side, anterior margin arcuate though slightly emarginate at the middle, posterior margin subtruncate, anterior angles obtuse and invisible from above, posterior ones rounded; surface rather densely covered with somewhat coarser punctures than those on head, the median longitudinal smooth space indistinct. Scutellum relatively small and subtriangular, uneven and provided with a few minute setiferous punctures on the surface. Elytra subtrapezoidal, slightly dilated posteriad and subdepressed above, slightly longer than wide ($length/width=1.05$), slightly shorter (elytra/pronotum=0.96) but a little wider than pronotum (elytra/pronotum=1.10); lateral sides gently arcuate, posterior margin emarginate at the

middle and forming an obtuse re-entrant angle; posterior angles rounded; surface densely and roughly punctured; epipleuron provided with a longitudinal carina inside the outer margin. Hind wings degenerated to minute lobes one-fourth as long as elytra. Legs moderately long; profemur thickened, but abruptly constricted in apical fourth; protibia somewhat dilated apicad, hollowed in basal half on the inner margin and closely covered with short yellowish setae on the surface of hollow; meso- and metatibae simple; protarsal segments somewhat dilated.

Abdomen elongate, gradually dilated towards 7th segment, and then abruptly narrowed apicad, all the tergites closely, finely punctured and covered with fine brownish pubescence, 3rd to 7th tergites each shallowly and transversely depressed along the base; 7th sternite shallowly and broadly emarginate at the middle of posterior margin and somewhat flattened in front of the emargination; 8th sternite subtriangularly excised at the middle of posterior margin and provided with a relatively deep and oblong depression before the excision, bottom of the depression asperate.

Genital organ elongate and symmetrical. Median lobe elliptical and gradually narrowed towards the apex which is subtruncated. Fused paramere narrower but distinctly longer than median lobe, gently constricted at the median part and abruptly narrowed towards the pointed apex as seen from dorsal side, suddenly curved to the right side at basal third and provided with a minute spine-like projection at basal fourth of the outer side in profile.

Female. Similar in general appearance to male, but different from it in the 8th abdominal sternite narrowed towards the subtruncated apex.

Type series. Holotype: ♂, Mt. Hakusan, Ishikawa Pref., Honshu, Japan, 28–VII–1993, I. TOGASHI leg.; allotype: ♀, near Midorigaike, Mt. Hakusan, Ishikawa Pref., Honshu, Japan, 14, 15–IX–1988, M. HASAGAWA leg. Paratypes: 1 ♂, Midagahara Marsh, Mt. Hakusan, Shiramine-mura, Ishikawa Pref., Honshu, Japan, 11–VII–2000, S. HIRAMATSU leg.; 1 ♀, Murodō, Mt. Hakusan, Shiramine-mura, Ishikawa Pref., Honshu, Japan, 11–VII–2000, S. HIRAMATSU leg.

Distribution. Japan (Mt. Hakusan in central Honshu).

Remarks. The present new species is closely similar in general appearance as well as in male genital organ to *P. nobilis* (SAWADA) from the Northern Japanese Alps, but different from it in the following points: Body smaller; head slightly less coarsely punctured; pronotum slightly narrower than head, surface more coarsely and more densely punctures, the median longitudinal smooth space obscure; elytra somewhat depressed above, slightly longer than wide, surface slightly more coarsely punctured; abdominal tergites each slightly more coarsely punctured; fused paramere of male genital organ less constricted near the middle and less dilated in apical third.

Bionomics. The holotype was obtained from under a stone in the alpine zone between Aoishi and Murodō on Mt. Hakusan at an altitude of 2,300–2,500 m. The allotype was found near Midorigaike on the same mountain at an altitude of 2,500 m. One paratype was obtained by using a vinegar trap set in Midorigaike Marsh on the same mountain at an altitude of about 2,200 m. The remaining one paratype was found

in a pithall trap set in the *Pinus pumila* community near Murodô on the same mountain at an altitude of 2,500 m.

Etymology. The specific epithet of this new species is derived from Mt. Hakusan, the type locality.

Platydomene kojimai Y. WATANABE, sp. nov.

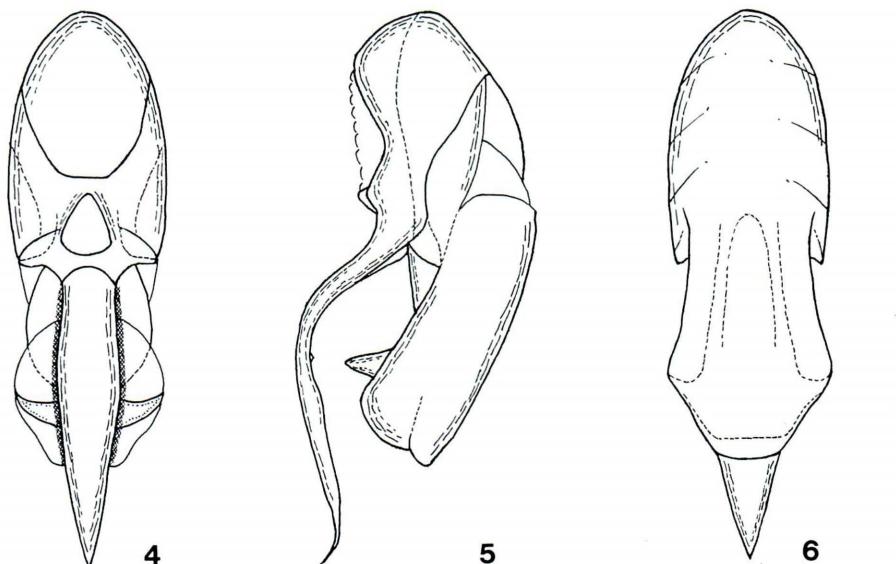
[Japanese name: Kojima-dôgane-nagahanekakushi]

(Figs. 4–6)

Body length: 6.3–7.2 mm (from front margin of head to anal end); 3.4–4.0 mm (from front margin of head to elytral apices).

M a l e and f e m a l e. Similar in general appearance to *P. hakusana*, but slightly different from it in configuration of male genital organ and the following points: Head suborbicular, slightly more convex at the middle than in *P. hakusana*, slightly longer than wide (length/width=1.02), widest at the middle and slightly more strongly narrowed posteriad than anteriad; postocular part more strongly arcuate and somewhat longer (postocular part/longitudinal diameter of eye=2.70) than in *P. hakusana*; surface slightly more densely and slightly less coarsely punctured on the vertexal area than in *P. hakusana*, the punctures becoming much closer and finer in latero-posterior parts as in *P. hakusana*. Antennae moderately long and similar in articulation to those of *P. hakusana*.

Pronotum gently elevated medially and more strongly narrowed posteriad than in



Figs. 4–6. Male genital organ of *Platydomene kojimai* Y. WATANABE, sp. nov.; dorsal view (4), lateral view (5), and ventral view (6). Scale: 0.5 mm.

P. hakusana, somewhat longer than wide (length/width=1.18), somewhat longer (pronotum/head=1.15) than though as wide as head; lateral sides slightly arcuate, anterior margin gently arcuate though somewhat emarginate at the middle, posterior margin subtruncate, anterior and posterior angles similar to those of *P. hakusana*; surface densely covered with slightly less coarse punctures than those of *P. hakusana*, provided with a smooth spot at the middle before posterior margin, the spot sometimes extending anteriad. Scutellum subtriangular, surface uneven. Elytra similar in configuration to those of *P. hakusana*, a little longer than wide (length/width=1.06), slightly shorter (elytra/pronotum=0.98) but a little wider than pronotum (elytra/pronotum=1.09); lateral sides and posterior margin similar to those of *P. hakusana*. Hind wings reduced as in *P. hakusana*. Legs similar in structure to those of *P. hakusana*.

Abdomen elongate, gradually narrowed towards 7th segment as in *P. hakusana*, each tergite similarly punctured as in *P. hakusana*; 8th sternite in male more narrowly and more shallowly excised at the middle of posterior margin than in *P. hakusana* and longitudinally depressed before the excision, bottom of the depression somewhat sparsely asperate though sometimes smooth in posterior half; in female, 8th sternite narrowed towards the apex which is subtruncate.

Male genital organ spindle-shaped; median lobe elliptical though somewhat constricted at the middle as seen from ventral side, provided with a subtriangular projection at posterior third of the inner side in profile. Fused paramere elongate, much narrower and longer than median lobe, nearly parallel-sided in basal half though abruptly narrowed towards the pointed apex in apical half as seen from dorsal side.

Type series. Holotype: ♂, allotype: ♀, Mt. Chausu-dake, Shizuoka Pref., Honshu, Japan, 8-X-1991, H. KOJIMA leg. Paratype: 1 ♂, same data as for the holotype.

Distribution. Japan (central Honshu).

Bionomics. All the type specimens were obtained from under dead leaves accumulated in a deciduous broadleaved forest at an altitude of 2,500 m.

Etymology. The specific epithet of this new species is given after Dr. Hiroaki KOJIMA, who collected all the specimens of the type series.

Platydomene nikkoensis Y. WATANABE, sp. nov.

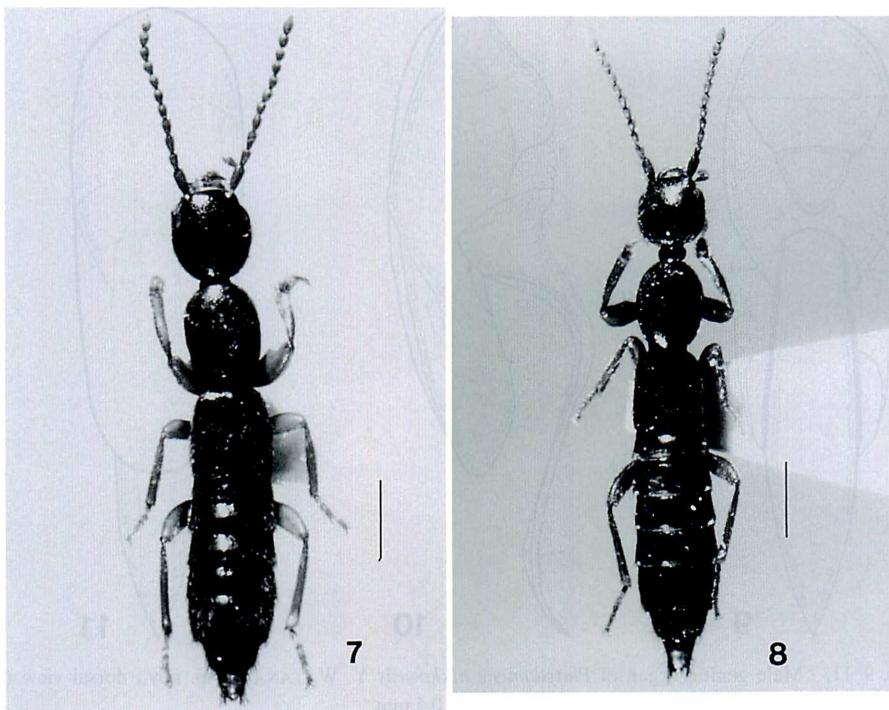
[Japanese name: Nikkō-dōgane-nagahanekakushi]

(Figs. 7, 9-11)

Body length: 6.4-8.2 mm (from front margin of head to anal end); 3.6-3.8 mm (from front margin of head to elytral apices).

M a l e and **f e m a l e**. Similar in general appearance to the three preceding species, but easily distinguished from them by the longer head and different configuration of fused paramere of male genital organ.

Head longer than wide (length/width=1.07), slightly more feebly convex at the vertexal area, and much more strongly narrowed posteriad than in *P. kojimai*; surface

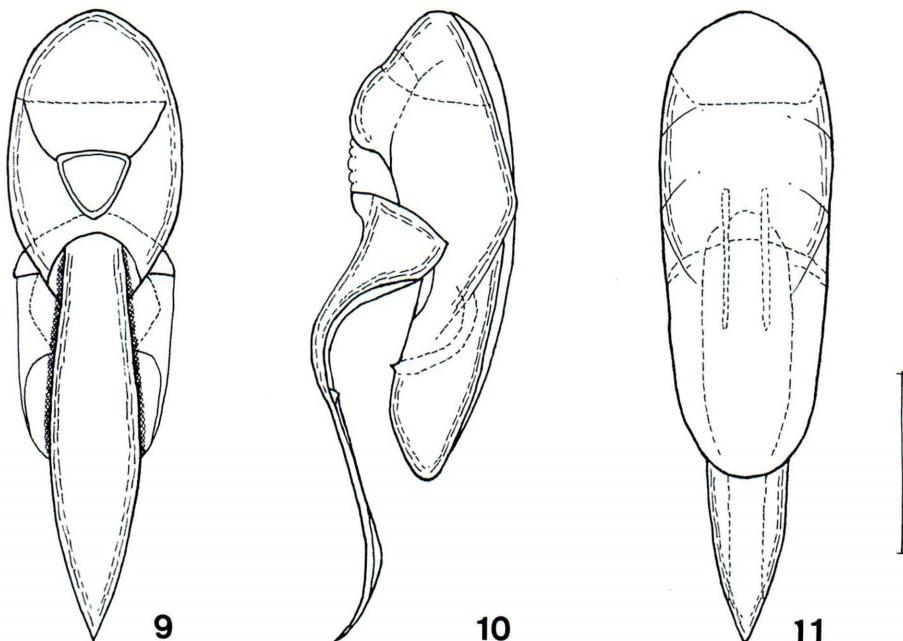


Figs. 7-8. Habitus of *Platydomene* spp.; *P. nikkoensis* Y. WATANABE, sp. nov., ♂ (7), and *P. hirogawarana* Y. WATANABE, sp. nov., ♂ (8). Scale: 1.0 mm.

more densely and more strongly punctured than in *P. kojimai*, the punctures becoming much denser and finer in latero-posterior parts as in *P. kojimai*. Antennae relatively long, extending a little beyond the middle of pronotum and similar in articulation to those of *P. kojimai*.

Pronotum less convex and slightly more strongly narrowed posteriad than in *P. kojimai*, distinctly longer than wide (length/width=1.22), somewhat longer (pronotum/head=1.09) but a little narrower (pronotum/head=0.95) than head; surface densely and more coarsely punctured than in *P. kojimai*, sometimes provided with a narrow obscure smooth space at the middle. Scutellum subtriangular and somewhat convex, surface provided with a few minute setiferous punctures. Legs similar in structure to those of *P. kojimai*. Elytra subtrapezoidal and somewhat dilated as in *P. kojimai*, distinctly longer than wide (length/width=1.09), slightly shorter (elytra/pronotum=0.96) but somewhat wider (elytra/pronotum=1.07) than pronotum, posterior margin emarginate at the middle as in *P. kojimai*; surface less coarsely and more roughly punctured than in *P. kojimai*. Hind wings degenerated to minute lobes which are two-thirds as long as elytra. Legs moderately long and similar in structure to those of *P. kojimai*.

Abdomen elongate, gradually dilated towards 7th segment, and then abruptly



Figs. 9-11. Male genital organ of *Platydomene nikkoensis* Y. WATANABE, sp. nov.; dorsal view (9), lateral view (10), and ventral view (11). Scale: 0.5 mm.

narrowed apicad; each tergite slightly less closely punctured than in *P. kojimai*; 8th sternite in the male shallowly and semicircularly excised at the middle of posterior margin and provided with a spindle-shaped and deeper depression before the excision than that of *P. kojimai*, bottom of the depression glabrous in anterior half though asperate in posterior half; in female, 8th sternite narrowed towards the broadly rounded apex.

Male genital organ similar in configuration to that of *P. kojimai*, but somewhat different from it in the following points: median lobe elliptical, widest at basal third and more strongly narrowed apicad than basad as seen from ventral side; fused paramere evidently narrower and much longer than median lobe, gently dilated apicad in basal two-thirds and strongly narrowed towards the pointed apex as seen from dorsal side.

Type series. Holotype: ♂, allotype: ♀, Pass Konsei-tōge, Gunma Pref., Honshu, Japan, 26-VIII-1964, Y. WATANABE leg. Paratypes: 7♂♂, 5♀♀, same data as for the holotype; 1♂, same locality and collector as above, 13-VIII-1980; 4♂♂, 10♀♀, near Sugenuma, Gunma Pref., Honshu, Japan, 25-VIII-1964, Y. WATANABE leg.; 1♀, same locality and collector as above, 13-VIII-1980; 7♂♂, 4♀♀, near Marunuma, Gunma Pref., Honshu, Japan, 7-IX-1965, Y. WATANABE leg.; 2♂♂, near Miike-goya, Fukushima Pref., Honshu, Japan, 27-VIII-1966, Y. WATANABE leg.; 1♂, 1♀, Nanairi, Aizu, Fukushima Pref., Honshu, Japan, 24-VI-1990, Y. WATANABE leg., 1♀, same locality and collector as above, 14-VII-1967.

Distribution. Japan (central Honshu).

Bionomics. All the type specimens were obtained by sifting dead leaves accumulated in deciduous broadleaved forests at five different localities at an altitude of 1,400–2,000 m.

Etymology. The specific epithet of this new species is given after “Nikkô”, in which lie the three known localities.

Playdomene hirogawarana Y. WATANABE, sp. nov.

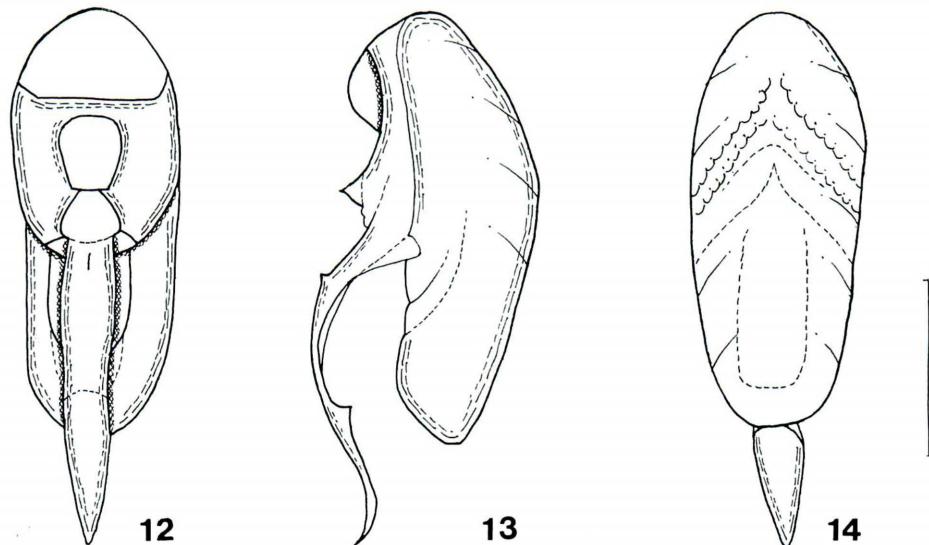
[Japanese name: Hirogawara-dôgane-nagahanekakushi]

(Figs. 8, 12–14)

Body length: 6.5–7.4 mm (from front margin of head to anal end); 3.5–3.6 mm (from front margin of head to elytral apices).

M a l e and f e m a l e. Resembling the four preceding species in both facies and colour, but distinctly different from them in much narrower fused paramere of the male genital organ.

Head gently convex on vertex as in *P. nikkoensis*, as long as or slightly longer than wide (length/width = 1.02), widest at the middle and more strongly narrowed posteriad than anteriad, though less narrowed posteriad than in *P. nikkoensis*; lateral sides more strongly arcuate than in *P. nikkoensis*; postocular part shorter than in *P. nikkoensis* (postocular part/longitudinal diameter of eye = 2.40); surface densely covered with slightly less coarse punctures than those of *P. nikkoensis*, the punctures becoming much denser and finer in latero-posterior parts as in *P. nikkoensis*. Antennae relatively long,



Figs. 12–14. Male genital organ of *Playdomene hirogawarana* Y. WATANABE, sp. nov.; dorsal view (12), lateral view (13), and ventral view (14). Scale: 0.5 mm.

extending a little beyond the middle of pronotum, similar in articulation to *P. nikkoensis*.

Pronotum gently convex above and narrowed posteriad as in *P. nikkoensis*, apparently longer than wide (length/width=1.25), distinctly longer (pronotum/head=1.19) though as wide as or just slightly narrower (pronotum/head=0.98) than head; lateral sides almost straight except near rounded anterior and posterior angles as seen from above; surface slightly more sparingly and less coarsely punctured than in *P. nikkoensis*. Scutellum subtriangular, surface similar to that of *P. nikkoensis*. Legs similar in structure to those of *P. nikkoensis*. Elytra subtrapezoidal and slightly dilated posteriad, a little longer than wide (length/width=1.09), somewhat shorter (elytra/pronotum=0.92) but slightly wider (elytra/pronotum=1.05) than pronotum, posterior angles rounded and posterior margin emarginate at the middle as in *P. nikkoensis*; surface more roughly and more obscurely punctured than in *P. nikkoensis*. Hind wings reduced as in the preceding species though as long as elytra in length.

Abdomen elongate, gradually widened towards 7th segment as in *P. nikkoensis*; each tergite slightly more densely and slightly more coarsely punctured than in *P. nikkoensis*; 8th sternite in the male subtriangularly excised at the middle of posterior margin as in *P. nikkoensis*, though the spindle-shaped depression before the excision is shallower than that of *P. nikkoensis*, bottom of the depression finely asperate except for smooth area in apical fourth; in female, 8th sternite narrowed towards the apex which is subtruncate.

Male genital organ elliptical and slightly asymmetrical. Median lobe similar in configuration to that of *P. nikkoensis*. Fused paramere elongate, more similar in configuration to that of *P. kojimai* than to those of other preceding species, somewhat constricted near the middle and narrowed in apical third towards the bluntly pointed apex as seen from dorsal side, provided with a small subtriangular projection at apical third on the ventral side and with a minute spine at basal third on the dorsal side.

Type series. Holotype: ♂, allotype: ♀, Hirogawara, Yamanashi Pref., Honshu, Japan, 6-VI-1964, Y. WATANABE leg. Paratypes: 26♂♂, 14♀♀, same data as for the holotype, 6♂♂, 5♀♀, same locality and collector as above, 11-VI-1966.

Distribution. Japan (central Honshu).

Bionomics. All the type specimens were obtained by sifting dead leaves accumulated in deciduous broadleaved forests at the foot of Mt. Kita-dake at an altitude of about 1,550 m.

Etymology. The specific epithet of the present new species is derived from the type locality "Hirogawara".

要 約

渡辺泰明：本州中央部の山地帯で採集された短翅ナガハネカクシ類（甲虫目ハネカクシ科）について。—— ドウガネナガハネカクシ *P. nobilis* は、北アルプスからの採集個体に基づき澤田高平によって記載された後翅が退化した特徴的な種である。私は手許のハネカクシ類を検討してい

る過程で、本州中部の山地帯で採集された、この種に近縁のいくつかの種を見出した。これらを詳細に検討した結果、5種に識別され、そのうちの北アルプス産の個体は上記のドウガネナガハネカクシに同定された。残りの白山、茶臼岳、日光および北岳山麓の広河原で採集された個体は、それぞれ雄交尾器に若干の形態的差異が認められ未記載種と判定されたので、ハクサンドウガネナガハネカクシ *Platydomene hakusana*, コジマドウガネナガハネカクシ *P. kojimai*, ニッコウドウガネナガハネカクシ *P. nikkoensis* およびヒロガワラドウガネナガハネカクシ *P. hirogawarana* と命名・記載した。

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Elytra, Tokyo, **36**(2): 341–342, November 22, 2008

New Distributional Records of *Micropodabrus maculivertex* (Coleoptera, Cantharidae)

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Micropodabrus maculivertex ISHIDA, 1989, was described from Okinawa-hontô Island of the Ryukyu Islands. IMASAKA (1992) additionally recorded this species from Amami-ôshima Island and Toku-no-shima Island of the middle Ryukyu Islands. In this short report, we will record it for the first time from Kume-jima and Tokashiki-jima lying nearby Okinawa-hontô. The collecting data are as given below.

Micropodabrus maculivertex ISHIDA, 1989

(Figs. 1–2)

Micropodabrus maculivertex ISHIDA, 1989, Ent. Rev. Japan, Osaka, **44**: 82, figs. 1, 3 a, 4 a. — IMASAKA, 1992, Coleopterists' News, Tokyo, (100): 30. — KIRIYAMA & KINODA, 2000, Tatehamodoki, Miyazaki, (36): 4, figs. 13 A, 13 C–D.